

REMARKS

This is intended as a full and complete response to the Office Action dated September 17, 2003, having a shortened statutory period for response set to expire on December 17, 2003. Please reconsider the claims pending in the application for reasons discussed below.

Claims 21-39 remain pending in the application following the entry of this response. Claims 1-20 are rejected by the Examiner. Claims 1-20 are cancelled by Applicant. Claims 21-39 are added. New claims 38 and 39 are presented to the Examiner for consideration. New claims 38 and 39 incorporate the subject matter of claims 19 and 20, respectively, and are believed to be in condition for allowance. Consideration of the added claims is requested for reasons presented below.

The Examiner states that claims 1-20 of this application conflict with claims 1-20 of pending and co-assigned U.S. Patent Application Serial No. 10/050,654. The Examiner asserts that claims 1-20 are provisionally rejected under U.S.C. § 101 as claiming the same invention as '654. Applicant respectfully traverses the rejection.

Original claims 1-20 are cancelled and new claims 21-39 are added. The invention as claimed in the present application does not conflict with the claimed invention of U.S. Patent Application Serial No. 10/050,654.

Claims 1 and 8-11 were rejected under 35 U.S.C. § 102(e) in view of U.S. Patent No. 6,464,779 (*Powell*) on grounds that the claimed process was disclosed by *Powell*. Claims 1-6 and 12-17 were rejected under 35 U.S.C. § 102(e) in view of U.S. Patent Publication No. 20020018849 (*George*) on grounds that the claimed process was disclosed by *George*. Claims 1-6 were rejected under 35 U.S.C. § 102(e) in view of U.S. Patent No. 6,090,442 (*Klaus*) on grounds that the claimed process was disclosed by *Klaus*. Applicant respectfully traverses the rejection.

Powell discloses a method to deposit copper films by atomic layer chemical vapor deposition. *Powell* has a filing date of January 19, 2001. The present patent application claims benefit of the U.S. Provisional Patent Application Serial No. 60/261,946, filed January 16, 2001. Support for the pending claims is found throughout

the provisional application. Therefore, *Powell* is not prior art to the present patent application under 35 U.S.C. § 102(e) as applied by the Examiner.


George discloses a chemical vapor deposition method to deposit silicon dioxide by flowing a catalyst, such as ammonia or a Lewis base, along with a silicon precursor and an oxygen source. *Klaus* discloses a binary reaction sequence chemistry to deposit silicon dioxide films by flowing a catalyst, such as pyridine, during both half-reactions of the silicon precursor and the oxygen precursor. *George* and *Klaus* do not teach, show or suggest a method for depositing a film to a substrate within a process chamber by an atomic layer deposition technique, comprising introducing a precursor to the process chamber, absorbing the precursor to the substrate, purging the process chamber with a purge gas, introducing a process gas comprising the precursor and a reactant, reacting the absorbed precursor with the process gas to deposit the film and purging the process chamber with the purge gas, as recited in claim 21, and claims dependent thereon. Also, *George* and *Klaus* do not teach, show or suggest a method for depositing a metal-containing film to a substrate within a process chamber by an atomic layer deposition technique, comprising introducing a metal-containing precursor to the process chamber, absorbing the metal-containing precursor to the substrate, purging the process chamber with a purge gas, introducing a process gas comprising the metal-containing precursor and a gaseous catalyst, chemically reducing the absorbed metal-containing precursor with the process gas to deposit the metal-containing film and purging the process chamber with the purge gas, as recited in claim 27, and claims dependent thereon. Also, *George* and *Klaus* do not teach, show or suggest a method for depositing a copper-containing film to a substrate within a process chamber by an atomic layer deposition technique, comprising introducing a copper precursor to the process chamber, absorbing the copper precursor to the substrate, purging the process chamber with a purge gas, introducing a process gas comprising the copper precursor and a reactant, reacting the absorbed copper precursor with the process gas and purging the process chamber with the purge gas, as recited in claim 33, and claims dependent thereon. Also, *George* and *Klaus* do not teach, show or suggest a method of growing a thin film onto a substrate located with a reaction chamber comprising feeding a precursor of the film into the reaction chamber, causing

the precursor to adsorb onto the surface of the substrate to form a layer thereof, and feeding a catalyst and the precursor into the reaction chamber in amounts to substantially convert the layer of the precursor to the thin film, wherein the precursor comprises copperhexafluoracetylacetonate trimethylvinylsilane, as recited in claim 38, and claims dependent thereon. New claims 21-39 do not teach, show or suggest the subject matter of *George and Klaus* alone or in combination.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show or suggest the invention as claimed.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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